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### IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF

JAMES H. STEPHENS

: EXAMINER: SHAW, PELING ANDY

SERIAL NO: 10/045,303

FILED: OCTOBER 29, 2001

: GROUP ART UNIT: 2444

FOR: SYSTEM AND METHOD FOR

MODELING VIDEO NETWORK

RELIABILITY

#### REPLY BRIEF UNDER 37 CFR § 41.41

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR:

The present Reply Brief is presented in order to point out and respond to numerous errors in the Examiner's Answer (hereinafter EA) as to clearly improper and unreasonable interpretations of the teachings of the references relied on in the rejection of Claim 1, 11, and 20 as being unpatentable over Natarajan in view of Weisman made under 35 U.S.C. § 103(a).

## I. ERRONEOUS ASSERTIONS AND ARGUMENTS AS TO OBVIOUSNESS

A. The Examiner has misconstrued the claimed "historical data for multiple video conferences."

"Historical data for multiple video conferences," as used in the present application, refers to call history records for previously conducted and completed video conferences.1 As shown in Applicant's Fig. 3, the historical data includes call history records for previously

<sup>&</sup>lt;sup>1</sup> Specification, page 7, lines 25-26.

conducted video conferences between various combinations of endpoints. As Claim 1 specifies, the historical data includes vendor or model identification information, which refers to the previously conducted video conferences.

The Examiner appears to give no weight to the word "historical." This is an error as it is well established that each word of every claim must be given weight. *See* In Re Wilson, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970). Further, it is well established that while the U.S. Patent and Trademark Office is to give claim language its broadest "reasonable" interpretation, this does not mean that the U.S. Patent and Trademark Office can completely ignore the understanding that the artisan would have of the term "historical" obtained in light of the specification so as to ascribe a completely different and unknown meaning to "historical." *See* In Re Cortright, 165 F.3d 1353, 1358, 49 U.S.P.Q. 2d 1464, 1467 (Fed. Cir. 1999)' ("Although the PTO must give claims their broadest reasonable interpretation, this interpretation must be consistent with the one those skilled in the art would reach.") and In Re Okuzawa, 537 F.2d 545, 548, 190 U.S.P.Q. 464, 466 (C.C.P.A. 1976) citing In Re Royka, 490 F.2d 981, 984, 180 U.S.P.Q. 580, 582-83 (C.C.P.A. 1974) ("Claims are not to be read in a vacuum, and while it is true they are given the broadest *reasonable* interpretation during prosecution, their terms still have to be given the meaning called for by the specification of which they form a part.").

Page 18 of the EA takes the position that <u>Natarajan</u> suggests "historical data," and supports this position by referencing the Abstract of <u>Natarajan</u> on page 17 of the EA.

The feedback<sup>2</sup> discussed in the Abstract of <u>Natarajan</u> pertains to a single, on-going (i.e., current), video conference. Since the feedback of <u>Natarajan</u> pertains to a single video conference, <u>Natarajan</u> does not suggest historical data for multiple video conferences as recited in Claim 1. Furthermore, since the feedback of <u>Natarajan</u> is for an on-going (i.e.,

<sup>&</sup>lt;sup>2</sup> The updated control information referred to at line 9 of the Abstract of <u>Natarajan</u>.

current) video conference, the feedback is not "historical." These aspects of Natarajan are shown in Natarajan's Fig. 17. As shown in step 1702 of Natarajan's Fig. 17, one video conference is initiated. As indicated by step 1706, packets dropped are reported. Feedback from either step 1714 or 1728 of Natarajan's Fig. 17 is used only in the current video conference (i.e., the one initiated at step 1702). Information learned from the video conference initiated in step 1702 are not stored and used for further video conferences. Thus, the feedback from steps 1714 or 1728 of Natarajan's Fig. 17 is not "historical data for multiple video conferences." Furthermore, the feedback of Natarajan is not used for a new video conference (i.e., a video conference different from the video conference initiated in step 1702). (See the "conducting" step of Claim 1, which is further discussed below.)

Furthermore, assuming *arguendo*, that it is obvious to modify the feedback of <a href="Natarajan">Natarajan</a> to include model or vendor information from <a href="Weisman">Weisman</a>, this does not make the feedback of <a href="Natarajan">Natarajan</a> "historical data."

Thus, a proper combination of <u>Natarajan</u> and <u>Weisman</u> do not disclose or suggest the claimed "obtaining historical data for multiple video conferences."

B. <u>The combination of Natarajan and Weisman do not disclose or suggest "storing</u> said historical data in a call history table."

Page 19 of the EA refers to the data store referred to in step 1706 of Natarajan's Fig. 17. However, this data store of Natarajan stores a number of packets dropped during the ongoing video conference initiated in step 1702 of Natarajan's Fig. 17. The data store only stores this number of packets for an ongoing single video conference. There is not storage of historical data for multiple video conferences.

Furthermore, Claim 1 describes that the call history table includes video conferencing equipment vendor or model identification information. The data store of <u>Natarajan</u> only

stores a number of packets dropped and there is no disclosure or suggestion that the data store stores video conferencing equipment vendor or model identification information.

Furthermore, the broad reference to "network information to a centralized data store" at line 4, page 20, of the EA does not disclose or suggest "historical data" as it should be construed and video conferencing equipment vendor or model identification information.

Although the EA notes that equipment will have a vendor or model, there is no apparent reason to modify <u>Natarajan</u> to have model or vendor information stored in the data store.

Furthermore, the Examiner errs again by not giving any weight to the claimed "table," which a person of ordinary skill in the art would understand to be a data structure.<sup>3</sup> The Examiner does not point out a data structure in the cited art that includes both of the "historical data" and "video conferencing equipment vendor or model identification information" which constitutes the "call history table."

Thus, <u>Natarajan</u> does not disclose or suggest the claimed "storing said historical data in a call history table, said historical data including video conferencing equipment vendor or model identification."

C. The Examiner erred with respect to the claimed "executing a modeling algorithm that produces a model representing the historical data, which includes executing a decision tree algorithm."

As noted above, the Examiner erred in construing the claimed "historical data."

Page 21, lines 8-9, of the EA states "[t]here is no specific detail [sic] description how a particular algorithm is used in analyzing historical data." This assertion is false. Claim 1 it self indicates that the "executing" includes "executing a decision tree algorithm."

<sup>&</sup>lt;sup>3</sup> Specification, Fig. 2, step 206, for example.

Furthermore, the specification at page 4, lines 9-10, describes exemplary decision tree algorithms that may be used.

Furthermore, the Office Action mailed May 12, 2008, at page 4, refers to col. 14, lines 5-50 and col. 15, lines 1-37 to describe a decision tree. However, these sections refer to the policy engine of Natarajan, which monitors or manages network characteristics. The decision tree referred to in Natarajan is not used to produce "a model representing the historical data."

The Examiner has taken the position that the "historical data" is the feedback of <a href="Natarajan">Natarajan</a>. However, the policy engine of <a href="Natarajan">Natarajan</a> does not produce a model representing the feedback.

Thus, <u>Natarajan</u> does not disclose or suggest the claimed "executing a modeling algorithm that produces a model representing the historical data, which includes executing a decision tree algorithm."

# D. The Examiner failed to properly consider the analyzing step

Page 20 of the EA refers to <u>Natarajan</u> description of analyzing the effectiveness of a current policy. However, the claimed "analyzing" analyzes the model, which represents the historical data. The Examiner has taken the position that the "historical data" is the feedback. However, as shown in Fig. 17 of <u>Natarajan</u>, the feedback is generated after the evaluation of the policy (i.e., step 1728 is after steps 1720 and 1724). Thus, the evaluation of the policy in <u>Natarajan</u> cannot evaluate anything representing the feedback, as the feedback is not yet generated at the time steps 1720 and 1724 (i.e., the evaluation of the policy) are performed.

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<sup>&</sup>lt;sup>4</sup> Natarajan, col. 15, lines 8-11.

## E. The Examiner failed to properly consider the "conducting step."

In the invention defined by Claim 1, the historical data, the modeling, the analyzing to identify undesirable outcomes fro the video conferences are applied to a new video conference. As understood by a person of ordinary skill in the art, in light of the present specification and context of the claims, a new video conference is a video conference initiated subsequently to the video conferences for which the historical data was obtained for. Thus, Claim 1 recites "conducting a new video conference with the video conferencing network configured to avoid at least one of the identified characteristics associated with undesirable outcomes."

Page 22 of the EA refers to Fig. 17 of Natarajan. However, there is no establishing a new video conference based on the feedback. On the contrary, the feedback in steps 1714 or 1728 of Natarajan's Fig. 17 only modifies the ongoing video conference (i.e., the one previously established in step 1702). There is no disclosure or suggestion in Natarajan of using any feedback from a prior video conference in a new video conference. Any adaptation made with respect to changing network conditions in Natarajan are made for the current ongoing video conference (i.e., the one established in step 1702). There is no "conducting a new video conference" that avoids the problems determined by steps 1720, 1724, 1726, and 1728 of Natarajan.

Thus, <u>Natarajan</u> does not disclose or suggest the claimed "conducting a new video conference with the video conferencing network configured to avoid at least one of the identified characteristics associated with undesirable outcomes."

# F. Independent claims other than Claim 1

The Examiner's position with respect to the other independent claims is incorrect for at least the reasons stated above for Claim 1.

### II. CONCLUSION

In light of the above-noted errors, the reversal of all applied grounds of rejection is respectfully submitted to be in order and respectfully requested.

Respectfully submitted,

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